SBC further has established a new commercial offering that "will enable VoIP providers to offer customers who use their service at a fixed location, such as their home" full E911 service and has stated that it is "willing to develop a wireless-like VOIP 911 capability for VOIP providers" pending receipt of necessary technical information.[134]

40. We are requiring that all interconnected VoIP 911 calls be routed through the dedicated Wireline E911 Network because of the importance of protecting consumers who have embraced this new technology. We recognize that compliance with this obligation is necessarily dependent on the ability of the interconnected VoIP providers to have access to trunks and selective routers via competitive LECs that have negotiated access with the incumbent LECs, through direct connections to the incumbent LECs, or through third-party providers. We expect and strongly encourage all parties involved to work together to develop and deploy VoIP E911 solutions and we point out that incumbent LECs, as common carriers, are subject to sections 201 and 202 of the Act. The Commission will closely monitor these efforts within the industry and will not hesitate to take further action should that be necessary.

41. By requiring that all 911 calls be routed via the dedicated Wireline E911 Network, we are requiring interconnected VoIP service providers to provide E911 service only in those areas where Selective Routers are utilized.[135] We expect that few VoIP 911 calls will be placed in areas that are not interconnected with a dedicated Wireline E911 Network.[136] We further note that nothing in this Order prevents interconnected VoIP providers from entering into mutually acceptable 911 call termination arrangements with PSAPs that are not interconnected with a dedicated Wireline E911 Network. In the attached *NPRM*, we seek comment on whether the Commission need take specific action with respect to such calls.[137]

42. ***Service Level Obligation.*** For the purposes of these requirements, the phrase "all 911 calls" is defined as "any voice communication initiated by an interconnected VoIP user dialing 911."[138] We recognize that not all PSAPs will immediately be capable of receiving and utilizing the call back number and Registered Location information associated with the E911 requirements outlined above.[139] By way of example, NENA estimates that approximately 26.6 percent of all PSAPs are not currently capable of receiving and utilizing wireless E911 Phase I data.[140] We therefore hold that the E911 requirements set

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providers to purchase a tariffed interconnection service called TIPToP and offers access to its Selective Routers and 911 databases pursuant to an optional ancillary agreement).

[134] *See* Letter from James K. Smith, Executive Director - Federal Regulatory, SBC Services, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-36 at 1, Attach. at 1 (filed May 12, 2004) (SBC May 12, 2005 *Ex Parte* Letter).

[135] *See supra* note 37 (identifying selective routing capability as the key characteristic distinguishing basic 911 and E911).

[136] We note that NENA estimates that 93% of counties with wireline 911 service have E911 service. *See* NENA 911 Fast Facts.

[137] *See infra* Part IV.

[138] We note that end users may not be able to initiate a voice communication, by dialing 911 or otherwise, where their broadband connection has failed or they have lost electrical power. *Cf.* AOL May 11, 2005 *Ex Parte* Letter at 2; Letter from Jennifer L. Phurrough, Counsel for EarthLink, Inc. to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-36 at 1 (EarthLink May 12, 2005 *Ex Parte* Letter).

[139] The term "Registered Location" is defined *infra*, para. 46.

[140] *See* NENA 911 Fast Facts.

forth above shall be applicable when an interconnected VoIP provider provides service to a Registered Location only to the extent that the PSAP, designated statewide default answering point, or appropriate local emergency authority designated to serve that Registered Location is capable of receiving and utilizing the data, such as ALI or ANI, associated with those requirements. Even in those areas where the PSAP is not capable of receiving or processing location or call back information, however, we conclude that interconnected VoIP providers must transmit all 911 calls to the appropriate PSAP via the Wireline E911 Network. To be clear, this means that interconnected VoIP providers are *always* required to transmit all 911 calls to the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority utilizing the Selective Router, the trunk line(s) between the Selective Router and the PSAP, and such other elements of the Wireline E911 Network[141] as are necessary in those areas where Selective Routers are utilized.[142]

43. We further hold that the obligation to determine what type of information, such as ALI or ANI, each PSAP is capable of receiving and utilizing rests with the provider of interconnected VoIP services. There is no limit to the number of entities that may engage in the provision of interconnected VoIP services in a given geographic area. It would be unreasonable to require PSAPs to attempt to inform every provider of interconnected VoIP services when the PSAP is prepared to receive and utilize the information associated with E911 service.

44. We decline at this time to adopt performance standards regarding how much time may elapse after an end user updates the Registered Location before the provider has taken such actions as are necessary to provide that end user with the level of E911 service specified in this Order.[143] We request comment, however, on whether such performance standards are necessary and, if so, what form they should take in the *NPRM* issued in conjunction with this Order.[144]

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[141] The Wireline E911 Network is described *supra*, paras. 14-15.

[142] We emphasize that interconnected VoIP providers may not fulfill their E911 obligations by routing 911 calls to 10-digit NPA-NXX numbers (so called "administrative numbers") of PSAPs, designated statewide default answering points, or appropriate local emergency authorities where a Selective Router is utilized. *Cf.* NASUCA Comments at 52 ("Delivering 911 calls to the PSAP this way is better than not delivering them at all, but not much better"); New York City Apr. 22, 2005 *Ex Parte* Letter at 1 (stating "the routing by VOIP providers of 911-dialed calls to administrative desks at 911 calling centers is unacceptable and hazardous"); Letter from Gregory Ballentine, President, APCO International, to Kevin J. Martin, Chairman, FCC, WC Docket No 04-36 at 1 (filed Apr. 15, 2005) (APCO Apr. 15, 2005 *Ex Parte* Letter) (stating that while routing 911 calls to administrative numbers is "perhaps acceptable for some PSAPs, such an approach could endanger the public and disrupt already over-burdened PSAP operations" at others). Nothing in this Order, however, prevents interconnected VoIP providers from entering into mutually acceptable 911 call termination arrangements, with PSAPs, designated statewide default answering points, or appropriate local emergency authorities that are not interconnected with a Selective Router through a dedicated Wireline E911 Network. *Cf. id.* at 1.

[143] With a NENA I2 or wireless E911-like solution in place, an interconnected VoIP provider should be able to provide an end user's updated location to a requesting PSAP in "real time." *See* Intrado Apr. 19, 2005 *Ex Parte* Letter, Attach. at 11; Letter from William B. Wilhelm, Jr., Counsel for Vonage Holdings Corp. to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-36, Attach. at 8 (Vonage May 13, 2005 *Ex Parte* Letter). We understand, however, that updating an end user's location information in the ALI database can require between 24 and 120 hours where a wireless E911-like solution is not in place. *See* Vonage May 9, 2005 *Ex Parte* Letter at 4 (24-48 hours); Qwest May 12, 2005 *Ex Parte* Letter at 2 (72 hours); Level 3 May 12, 2005 *Ex Parte* Letter at 2 (120 hours).

[144] *See infra* Part IV.

45. We also require interconnected VoIP providers to take certain additional steps to minimize the scope of the 911 issues associated with their service and to facilitate their compliance with our new VoIP E911 rules, as explained below. First, we require interconnected VoIP providers to obtain, and facilitate updating of, customer location information. Second, we preclude interconnected VoIP providers from requiring subscribers to "opt-in" or allowing subscribers to "opt-out" of 911 services and expect that VoIP providers will notify their customers of the limitations of their 911 service offerings.

46. ***Registered Location Requirement.*** We recognize that it currently is not always technologically feasible for providers of interconnected VoIP services to automatically determine the location of their end users without end users' active cooperation.[145] We therefore require providers of interconnected VoIP services to obtain location information from their customers.[146] Specifically, interconnected VoIP providers must obtain from each customer, prior to the initiation of service, the physical location at which the service will first be utilized.[147] Furthermore, providers of interconnected VoIP services that can be utilized from more than one physical location must provide their end users one or more methods of updating information regarding the user's physical location. Although we decline to specify any particular method, we require that any method utilized allow an end user to update his or her Registered Location at will and in a timely manner, including at least one option that requires use only of the CPE necessary to access the interconnected VoIP service. We caution interconnected VoIP providers against charging customers to update their Registered Location, as this would discourage customers from doing so and therefore undermine this solution. The most recent location provided to an interconnected VoIP provider by a customer is the "Registered Location."[148] Interconnected VoIP providers can comply with this requirement directly or by utilizing the services of a third party.

47. ***Customer Requirements.*** In light of the recent incidents involving problems with 911 access from interconnected VoIP services,[149] it is clear that not all providers of interconnected VoIP are including E911 as a standard feature of their services.[150] We find that allowing customers of

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[145] *See, e.g.*, 8X8 Comments at 17, 25; Alcatel Comments at 18; AT&T Comments at n.18; Avaya Comments at 19; Dialpad *et al.* Comments at 15; Qwest Comments at n.47; Letter from Ronald W. Del Sesto, Jr., Counsel for Nuvio, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-36 at 2 (filed Apr. 1, 2005); Greater Harris County/Tarrant County/NENA Apr. 15, 2005 *Ex Parte* Letter, Attach. at 3; *see also Vonage Order*, 19 FCC Rcd at 22419-21, paras. 24-29 (explaining that VoIP providers have neither the means nor any service-driven reason to track the actual end points of communications).

[146] We emphasize that we are not requiring interconnected VoIP providers to automatically determine the location of their end users. Nothing in these rules, however, prevents an interconnected VoIP provider from automatically obtaining an accurate Registered Location if it is capable of doing so.

[147] Interconnected VoIP providers also must obtain from their existing customers, within 120 days of the effective date of this Order, the physical location at which the service is being utilized.

[148] We expect that customers of interconnected VoIP service providers will, in almost all cases, be able to provide their Registered Location in the form of a valid street address. We recognize, however, that wireless broadband technologies may increase the possibility that a user's location is not associated with a street address, and request comment on whether some other solution is necessary in that circumstance. *See infra* Part IV.

[149] *See supra* note 2 (describing incidents in Texas, Connecticut, and Florida in which users of interconnected VoIP services reportedly were unable to reach emergency dispatchers by dialing 911).

[150] Some interconnected VoIP providers do not provide any 911 or 911-like service. *See, e.g.*, Net2Phone, *FAQs (Frequently Asked Questions)* (visited Apr. 25, 2005) <http://web.net2phone.com/consumer/voiceline/support_faq.asp#Doyouprovide911service> (Net2Phone FAQ). Other providers require their customers to affirmatively request, or "opt-in" to, the provider's 911 or 911-like

interconnected VoIP providers to opt-in to or, for that matter, opt-out of E911 service is fundamentally inconsistent with our obligation to "encourage and support efforts by States to deploy comprehensive end-to-end emergency communications infrastructure and programs."[151] Thus, interconnected VoIP providers must, as a condition of providing that service to a consumer, provide that consumer with E911 service as outlined in the requirements above.[152]

48. Further, although many VoIP providers include explanations of the limitations of their 911-like service (or lack thereof) in the Frequently Asked Questions sections on their web sites or in their terms of service,[153] recent incidents make clear that consumers in many cases may not understand that the reasonable expectations they have developed with respect to the availability of 911/E911 service via wireless and traditional wireline telephones may not be met when they utilize interconnected VoIP services.[154] In order to ensure that consumers of interconnected VoIP services are aware of their interconnected VoIP service's actual E911 capabilities, by the effective date of this Order, we require that all providers of interconnected VoIP service specifically advise every subscriber, both new and existing, prominently and in plain language, the circumstances under which E911 service may not be available through the interconnected VoIP service or may be in some way limited by comparison to traditional E911 service.[155] VoIP providers shall obtain and keep a record of affirmative acknowledgement by every subscriber, both new and existing, of having received and understood this advisory. In addition, in order to ensure to the extent possible that the advisory is available to all

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services. *See, e.g.*, Packet8, *Feature Details* (visited Apr. 25, 2005) <http://www.packet8.net/about/featuresdetails0604.asp#e911> (Packet8 Feature Details); Vonage, *Vonage Lets You Dial 911* (visited Apr. 25, 2005) <http://www.vonage.com/features.php?feature=911> (Vonage 911 FAQ).

[151] 911 Act § 3(b). The prospect that an individual might opt out of 911 service on his or her primary home communications system also raises serious public policy issues. *See* Citizens Utility Board Comments at 28.

[152] Thus, interconnected VoIP providers must make E911 an included feature of their service, not an optional one. *Cf., e.g.*, Packet8, *Feature Details* (visited Apr. 25, 2005) <http://www.packet8.net/about/featuresdetails0604.asp#e911>. We do not dictate how providers recover their costs for E911. *See infra* Part III.D.

[153] *See, e.g.*, Net2Phone FAQ; Skype, *SkypeOut Frequently Asked Questions* (visited Apr. 25, 2005) <http://www.skype.com/help/faq/skypeout.html#calling>; Skype, *Terms of Service* (visited May 18, 2005) <http://www.skype.com/company/legal/terms/tos_voip.html>; Packet8 Feature Details; Packet8, *Terms and Conditions of Service*, (visited May 18, 2005) <http://www.packet8.net/about/service_terms.asp>; Vonage 911 FAQ; Vonage, Terms of Service (visited May 18, 2005) <http://www.vonage.com/features_terms_service.php?lid=footer_terms>; VoiceWing, FAQs - Product Features (visited Apr. 25, 2005) <https://www22.verizon.com/CustomerHelp/CGI-BIN/SmartHelp.asp?St=221&E=0000000000000779354&K=9408&Sxi=4&dtree=257#622>; VoiceWing, Verizon VoiceWing Terms of Service (visited May 18, 2005) <https://www22.verizon.com/ForYourHome/VOIP/Popup_PrintTos.aspx>.

[154] *See supra* note 2 (describing incidents in Texas, Connecticut, and Florida in which users of interconnected VoIP services were unable to reach emergency dispatchers by dialing 911); *see also supra* note 72 (highlighting consumer expectations that interconnected VoIP services will function in some ways like a "regular telephone" service, including with respect to E911 service).

[155] Such circumstances include, but are not limited to, relocation of the end user's IP-compatible CPE, use by the end user of a non-native telephone number, broadband connection failure, loss of electrical power, and delays that may occur in making a Registered Location available in or through the ALI database. *See, e.g.*, AOL May 11, 2005 *Ex Parte* Letter at 2 (stating that VoIP service does not work during power outages without backup power capabilities or during broadband service interruptions); EarthLink May 12, 2005 *Ex Parte* Letter at 1 (same).

potential users of an interconnected VoIP service,[156] interconnected VoIP service providers shall distribute to all subscribers, both new and existing, warning stickers or other appropriate labels warning subscribers if E911 service may be limited or not available and instructing the subscriber to place them on and/or near the CPE used in conjunction with the interconnected VoIP service.

49. Additional customer education efforts may well be necessary for users of portable interconnected VoIP, for whom E911 service requires that they notify their service provider affirmatively of their location. For example, customers of portable interconnected VoIP services likely will need to be instructed on how to register their locations with their providers, the need to update that information promptly when they relocate, and how to confirm that the registration is effective.[157] In the attached *NPRM*, we seek comment on whether stronger Commission action is needed with respect to customer notification.[158]

50. ***Compliance Letter.*** We require all interconnected VoIP providers to submit a letter to the Federal Communications Commission detailing their compliance with our rules no later than 120 days after the effective date of this Order. The letter and all other filings related to this Order should be filed with the Commission's Secretary in WC Docket No. 05-196 on a going-forward basis.

51. Because of the vital public safety interests at stake in this proceeding, we are committed to ensuring compliance with the rules we adopt in this Order. Failure to comply with these rules cannot and will not be tolerated, as noncompliance may have a direct effect on the lives of those customers who choose to obtain service from the interconnected VoIP providers covered by this Order. Interconnected VoIP providers who do not comply fully with the requirements set forth in this Order will be subject to swift enforcement action by the Commission, including substantial proposed forfeitures and, in appropriate cases, cease and desist orders and proceedings to revoke any Commission licenses held by the interconnected VoIP provider.

D. 911 Funding

52. We believe that the requirements we establish today will significantly expand and improve interconnected VoIP 911 service while substantially reducing the threat to 911 funding that some VoIP services currently pose.[159] First, we recognize that while some state laws today may already require 911 funding contributions from providers of interconnected VoIP, interconnected VoIP providers may not be

[156] Some users of an interconnected VoIP service will not be subscribers. Guests at a subscriber's premises, for example, may not know their host's phone service is provided via interconnected VoIP.

[157] *See supra* para. 46. We have seen examples of customer notification efforts. Verizon, for example, includes in the terms and conditions for its VoiceWing VoIP product a detailed description of the service's 911 capabilities and limitations. *See* Verizon Apr. 15, 2005 *Ex Parte* Letter, Attach. at 3-4. This description contains instructions for notifying Verizon when the customer uses the service at a new location, as well as an explanation of potential 911 service interruptions due to power outages or network congestion. *See id.*

[158] *See infra* para. 59.

[159] Some commenters have expressed concern about the effect of increased use of VoIP services on 911 funding. *See, e.g.*, APCO Comments at 9; BellSouth Comments at 52; BRETSA Comments at 4, 6; CUB Comments at 27; FERUP Comments at 15; Global Crossing Comments at 15; King Country Comments at 3-5; Missouri Commission Comments at 4; NARUC Comments at 8; NASUCA Comments at 55; NCL Comments at 5; NENA Comments at 8; Spokane County Comments at 1; Texas Coalition of Cities Comments at 3-4; TCSEC Comments at 3-5; AT&T Reply at 22; Intrado Reply at 2-3; NASUCA Reply at 50-51; New Jersey Ratepayer Advocate Reply at 24-25.

covered by existing state 911 funding mechanisms in other states.[160] But even in the latter circumstance, the record does not indicate that states are receiving no 911 funding contributions from interconnected VoIP providers. On the contrary, the record indicates that many interconnected VoIP providers currently are contributing to state 911 funding mechanisms.[161] In addition, states have the option of collecting 911 charges from wholesale providers with whom interconnected VoIP providers contract to provide E911 service, rather than assessing those charges on the interconnected VoIP providers directly. For example, we have explained that interconnected VoIP providers often enlist a competitive LEC partner in order to obtain interconnection to the Wireline E911 Network, and we believe that as a result of this Order, many more will do so.[162] In that situation, states may impose 911 funding obligations on the competitive LEC partners of interconnected VoIP providers, regardless of whether the VoIP providers themselves are under any obligation to contribute.[163] Similarly, states may be able to impose funding obligations on systems service providers, such as incumbent LECs, that provide direct interconnection to interconnected VoIP providers. We believe that the ability to assess 911 funds on interconnected VoIP providers indirectly should narrow any gap in 911 funding attributable to consumers switching to interconnected VoIP service.

53. Second, the record indicates that the network components that have been developed to make wireless E911 possible can also be used for VoIP E911, which should make the implementation process simpler and far less expensive than the initial upgrades necessary for wireless E911.[164] For that reason,

[160] *See, e.g.*, Letter from Robert M. Gurss, Director of Legal and Government Affairs, APCO, to Marlene Dortch, Secretary, FCC, WC Docket No. 04-36, Attach. (filed May 10, 2005) (describing state funding mechanisms). States may be in the process of modifying their 911 funding requirements to cover interconnected VoIP providers. *See, e.g.*, H.F. No. 2103, 84th Leg. Sess., Reg. Sess. (Minn. 2005) (proposing to expand applicability of state 911/E911 law beyond telecommunications service providers to include "other entit[ies] determined by the commissioner to be capable of providing effective and efficient components of the 911 system"). We use the term "state" for purposes of this discussion, although we recognize that in many areas, local authorities are responsible for 911 funding.

[161] According to NENA and the VON Coalition, 75% of signatories to the VON/NENA Agreement currently are paying into state and local 911 funds. *See* VON/NENA Jan. 2005 White Paper at 10.

[162] *See supra* para. 38.

[163] Because 911 contribution obligations are typically assessed on a per-line basis, states may need to explore other means of collecting an appropriate amount from competitive LECs on behalf of their interconnected VoIP partners, such as a per-subscriber basis. Similarly, if an interconnected VoIP provider interconnects directly with a systems service provider or PSAP, states may need to explore collecting amounts from these entities, which could pass the charges through to the interconnected VoIP provider.

[164] *See supra* para. 17 & note 122 (explaining that wireless E911 requires that PSAPs be able to receive and process pseudo-ANI, and that interconnected VoIP providers may utilize pseudo-ANI to deliver non-traditional location information to the PSAP). For this reason, we do not require that a cost recovery mechanism be in place for PSAPs before a VoIP provider must comply with the E911 obligations we establish today. In this respect we deviate from the wireless E911 scheme, under which a PSAP must have a means of covering its costs of receiving and utilizing the data elements associated with wireless E911 calls before a wireless carrier is required to provide E911 pursuant to that PSAP's request. *See* 47 C.F.R. § 20.18(j); *see also E911 Second Memorandum Opinion and Order*, 14 FCC Rcd at 20860, para. 23. There is no need to specify a cost recovery mechanism for interconnected VoIP providers because their rates are not regulated, so they are fully able to recover their E911 costs by raising their rates. *Cf. E911 Second Memorandum Opinion and Order*, 14 FCC Rcd at 20854, para. 7 (eliminating a cost recovery mechanism requirement for wireless carriers' costs because wireless carriers' rates were unregulated, giving them full flexibility to recover their costs without a mandatory mechanism). To the extent that it becomes a concern, we believe that the demarcation point that the Commission established for wireless E911 cost allocation would be equally appropriate for VoIP. *See King County Letter*; *King County Reconsideration Order*, 17 FCC Rcd 14789.

we do not expect the rules we adopt today to impose substantial implementation costs on PSAPs.[165] In short, we believe that the rules we adopt today will neither contribute to the diminishment of 911 funding nor require a substantial increase in 911 spending by state and local jurisdictions.

E. Liability

54. We decline to exempt providers of interconnected VoIP service from liability under state law related to their E911 services. Although the *Notice* did not directly address the issue, Intrado, among others, requests that the Commission insulate these VoIP providers from liability to the same extent that Congress insulated wireless carriers from liability related to the provision of 911/E911 service in the wireless context.[166] In the 911 Act, Congress gave wireless carriers providing 911 service liability protection equal to that available to wireline carriers for 911 calls.[167] Congress has enacted no similar protection for providers of interconnected VoIP service. As the Commission has said in an analogous context, before we would consider taking any action to preempt liability under state law, the Commission would need to demonstrate that limiting liability is essential to achieving the goals of the Act.[168]

55. No commenter has identified a source of authority for the Commission to limit liability in this way.[169] Limiting liability related to the use or provision of E911 services is not necessary to the creation or use of E911 services, and we are not persuaded that absent the liability protection sought by Intrado

[165] In fact, APCO's concerns about PSAP costs focused on the expense of responding to stopgap solutions, such as routing VoIP 911 calls to PSAPs' administrative numbers, and indicated a preference for a uniform VoIP E911 approach such as the one we adopt today. *See* APCO Apr. 15, 2005 *Ex Parte* Letter at 2 (stating that VoIP providers should be required to provide their customers with "full access to existing [E911] capability" rather than being permitted to route their calls to PSAPs' administrative numbers because PSAPs "lack the resources to be constantly upgrading and modifying their operations to be compatible with the latest technological fads").

[166] *See* Intrado Apr. 4, 2005 *Ex Parte* Letter, Attach. at 14 (seeking the Commission to provide VoIP service providers with the same liability protection that wireless carriers receive under 47 U.S.C. § 615a); AOL May 11, 2005 *Ex Parte* Letter at 2 (same); *see also* NCTA VoIP White Paper at 22 n.29 ("As with all service providers that offer 911/E911 capabilities, VoIP service providers should be protected by statutory and other limitations on liability pertaining to the provision of 911/E911 services."); Letter from Robert W. Quinn, Jr., Federal Government Affairs, Vice President, AT&T to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-36 at 5 (seeking the Commission to provide VoIP providers with "liability immunity" if they comply with notice and disclosure obligations and/or E911); Level 3 May 12, 2005 *Ex Parte* Letter at 6 ("Without a clear liability limitation, retail and wholesale VoIP providers may be reluctant to work on solutions for these vexing issues.").

[167] *See* 47 U.S.C. § 615a; 911 Act § 4 (providing wireless carriers, wireless users and PSAPs in a State the same degree of liability protection related to 911/E911 service as local exchange carriers, users and PSAPs have under federal or state law with respect to local exchange service in that State); *see also* TCS Apr. 22, 2005 *Ex Parte* Letter, Attach. at 41 (stating that wireless and wireline carriers are insulated from liability except for gross negligence).

[168] *See E911 First Report and Order*, 11 FCC Rcd at 18728, para. 100; *see also Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 04-102, Memorandum Opinion and Order, 12 FCC Rcd 22665, 22731-34, paras. 137-42 (1997). As the Commission noted in the *E911 First Report and Order*, the D.C. Circuit has struck down, as infringing on the jurisdiction of state courts, a Federal Energy Regulatory Commission (FERC) ruling that conditioned the granting of licenses for dams on a rule of strict liability for property damage caused by seismically-induced dam failure, and noted that FERC failed to show that the action was essential to achieving the goals of the Federal Power Act. *See E911 First Report and Order*, 11 FCC Rcd at 18728, para. 100 (citing *South Carolina Pub. Serv. Authority v. FERC*. 850 F.2d 788 (D.C. Cir. 1988)).

[169] *See, e.g.*, TCS Apr. 22, 2005 *Ex Parte* Letter, Attach. (noting that VoIP service providers do not receive the same liability protection as wireline and wireless carriers).

and others, interconnected VoIP providers will be unwilling or unable to provide E911 services. Rather, the record shows that some interconnected VoIP providers have already begun deploying E911 services.[170] In addition, to the extent individual interconnected VoIP providers believe they need this type of liability protection, they may seek to protect themselves from liability for negligence through their customer contracts and through their agreements with PSAPs, as some interconnected VoIP providers have done.[171]

IV. NOTICE OF PROPOSED RULEMAKING

56. In this *NPRM*, we seek comment on what additional steps the Commission should take to ensure that providers of VoIP services that interconnect with the nation's PSTN provide ubiquitous and reliable E911 service.[172] The Order that accompanies this *NPRM* is this Commission's first step to ensure that the life-saving benefits of E911 service that wireline telephone and wireless telephone users have come to rely on also are extended to citizens who choose to communicate using interconnected VoIP services. Due to the existing state of technology, today's Order relies in some cases on users to provide the location information that will be delivered to PSAPs in an emergency, and thus is an immediate step toward a more advanced solution in which the user automatically can be located without assistance from the user. We seek comment on what the Commission can do to further the development of this new technology, and on issues raised by today's Order, including whether the Commission should expand the scope and requirements of this Order. Commenters should take note of the Commission's view that while a provider of VoIP service enjoys the opportunity to introduce new and exciting public interest benefits to the communications marketplace, and to profit from those offerings, that opportunity brings with it the responsibility to ensure that public safety is protected.

57. As the Commission previously has discussed, one of the central customer benefits of portable interconnected VoIP services is the lack of geographic restrictions.[173] However, because portable interconnected VoIP services may be offered independent of geography, currently there is no way for portable VoIP providers reliably and automatically to provide location information to PSAPs for these services without the customer's active cooperation. What can the Commission do to facilitate the development of techniques for automatically identifying the geographic location of users of this type of VoIP service? What role should the Commission play to further the evolution of E911 service and E911 systems that do not depend on a customer providing his or her location information? A number of possible methods have been proposed to automatically identify the location of a VoIP user, including gathering location information through the use of: an access jack inventory; a wireless access point inventory; access point mapping and triangulation; HDTV signal triangulation; and various GPS-based

[170] *See, e.g.*, Letter from Glenn S. Richards, Counsel for VON Coalition, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-36, Attach. at 13-14 (filed Apr. 15, 2005) (listing progress various entities are making in providing emergency services to VoIP users today).

[171] *See* Verizon Apr. 15, 2005 *Ex Parte* Letter, Attach. 2 at 9 (disclaiming liability in VoiceWing's Terms of Service for inability to access emergency service personnel through 911, E911, or otherwise); Letter from James K. Smith, Executive Director – Federal Regulatory, SBC Services, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-36, Attach. at 8, para. 15 (filed Apr. 12, 2005) (exempting the VoIP service provider from liability related to the provision of VoIP 911 service except for gross negligence, recklessness or intentional misconduct).

[172] We hereby incorporate the comments and *ex parte* presentations in WC Docket No. 04-36 into this docket. Commenters need not resubmit material previously filed in that proceeding.

[173] *See Vonage Order*, 19 FCC Rcd 22420, 22422, paras. 25, 29.

solutions.[174] What role would be most productive for the Commission to play in facilitating the adoption of one or more of these possible solutions, or facilitating some other solution, to automatically identify a VoIP service customer's location? Are any of these solutions more promising than others? Are there any reasons why certain of these solutions are unworkable? What other solutions could be used to provide location information automatically in the VoIP service context? Should the Commission require all terminal adapters or other equipment used in the provision of interconnected VoIP service sold as of June 1, 2006 to be capable of providing location information automatically, whether embedded in other equipment or sold to customers as a separate device? Under what authority could the Commission take such actions?

58. We also seek comment on issues raised by our decision today to impose E911 service obligations on providers of interconnected VoIP services. The scope of today's Order is limited to providers of interconnected VoIP services. We seek comment on whether the Commission should extend these obligations, or similar obligations, to providers of other VoIP services that are not covered by the rules adopted today. For instance, what E911 obligations, if any, should apply to VoIP services that are not fully interconnected to the PSTN? Specifically, should E911 obligations apply to VoIP services that enable users to terminate calls to the PSTN but do not permit users to receive calls that originate on the PSTN? Should E911 obligations apply to the converse situation in which a VoIP service enables users to receive calls from the PSTN but does not permit the user to make calls terminating to the PSTN?[175] We tentatively conclude that a provider of a VoIP service offering that permits users generally to receive calls that originate on the PSTN and separately makes available a different offering that permits users generally to terminate calls to the PSTN should be subject to the rules we adopt in today's Order if a user can combine those separate offerings or can use them simultaneously or in immediate succession. Are there any other services upon which the Commission should impose E911 obligations, including any IP-based voice services that do not require a broadband connection?

59. Does the Commission need to adopt regulations in addition to those imposed by today's Order to ensure that interconnected VoIP service customers obtain the required level of E911 services? It is our expectation that end-user updates of Registered Location information will take place immediately. If this is not feasible, what performance standards should the Commission adopt regarding the length of time between when an end user updates Registered Location information and when the service provider takes the actions necessary to enable E911 from that new location? How should such requirements be structured? How should providers of interconnected VoIP service satisfy the requirements we adopt today in cases in which a subscriber's Registered Location is not associated with a street address? What requirements, if any, should we impose on providers of interconnected VoIP service in geographic areas served by PSAPs that are not connected to a Selective Router? How should the use of wireless broadband connections such as Wi-Fi or WiMax impact the applicability of the obligations we adopt today? Would providers of wireless interconnected VoIP service be more appropriately subject to our existing 911/E911 rules for CMRS? Should the Commission require VoIP service providers to create redundant systems for providing E911 services, such as requiring redundant trunks to each Selective Router and/or requiring that multiple Selective Routers be able to route calls to each PSAP? We also seek comment on whether the Commission should impose additional or more restrictive customer notification requirements relating to E911 on VoIP providers, and on the sufficiency of our customer acknowledgement requirements.

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[174] *See* Intrado Apr. 19, 2005 *Ex Parte* Letter, Attach. at 14.

[175] *See supra* para. 24.

60. Should the Commission impose reporting obligations on VoIP service providers other than the compliance letter we impose in today's Order? Are there other ways for the Commission to monitor implementation of its E911 rules without imposing reporting requirements? We note that the Commission has imposed progress reporting requirements in the past for implementation and enforcement of 911/E911 transition deadlines for wireless[176] and wireline providers.[177] Should the Commission require interconnected VoIP providers to report what progress they are making in developing ways to locate automatically a user who dials 911? Should the Commission require reporting of any other information by interconnected VoIP providers? If the Commission adopts additional reporting requirements, what are the appropriate deadlines for such progress reports? Under what authority could the Commission take such actions?

61. We seek comment on what role states can and should play to help implement the E911 rules we adopt today. We recognize the historic and important role of states and localities in public safety matters. State and local governments have filled an especially important role in creating and regulating 911/E911 operations – a role states have shouldered even in the context of wireless services.[178] Should state and local governments play a role similar to the roles they play in implementing the Commission's wireless 911/E911 rules? Should the Commission take any action to facilitate the states' ability to collect 911 fees from interconnected VoIP providers, either directly or indirectly? How can the Commission and the states work together to ensure the public's safety?

62. Should the Commission adopt any customer privacy protections related to provision of E911 service by interconnected VoIP service providers? The E911 rules we adopt today when fully implemented will require interconnected VoIP service providers to transmit a customer's Registered Location to an appropriate PSAP, which necessarily requires providers of such services to maintain a list of their customers' Registered Location, and makes that information available to public safety professionals and others when the customer dials 911. Wireline and wireless telecommunications carriers are already subject to privacy requirements.[179] Should the Commission adopt similar privacy protections in the context of interconnected VoIP service? Under what authority could we adopt such rules?

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[176] *See, e.g.*, 47 C.F.R. § 20.18(i) (requiring certain wireless licensees to "report to the Commission their plans for implementing Phase II enhanced 911 service, including the location-determination technology they plan to employ and the procedure they intend to use to verify conformance with the Phase II accuracy requirements" and to update those plans within thirty days of the adoption of any change).

[177] *See N11 Codes Fifth Report and Order*, 16 FCC Rcd at 22281-82, paras. 42-45.

[178] *See, e.g., id.* at 22283-85, paras. 48-52; *see also supra* para. 7 & note 35.

[179] Section 222 of the Act prevents telecommunications carriers from disclosing customer proprietary network information (CPNI), including customer location information, without customer approval. *See* 47 U.S.C. § 222(c)(1). The Act excludes from the definition of CPNI a customer's address that is listed in a directory. *See* 47 U.S.C. § 222(h)(3). We also note that Congress in the 911 Act provided certain privacy protections related to wireless carriers' ability automatically to obtain and transmit precise customer location information, and exceptions from those rules for the provision of E911 service. *See* 911 Act § 5 (amending section 222 by, *inter alia*, adding new sections 47 U.S.C. § 222(d)(4), (f) (concerning wireless location information) and 47 U.S.C. § 222(g) (concerning subscriber information)). Also, in redesignating former section 47 U.S.C. § 222(f) as section 47 U.S.C. § 222(h), the 911 Act amended an existing definition and added new definitions. *See* 47 U.S.C. § 222(h)(1)(A), (4)-(7). We note that section 222 applies to telecommunications carriers. Interconnected VoIP service providers to date have not been classified as telecommunications carriers under the Act.

63. Finally, we seek comment on whether persons with disabilities can use interconnected VoIP service and other VoIP services to directly call a PSAP via a TTY in light of the requirement in Title II of the Americans with Disabilities Act (ADA) that PSAPs be directly accessible by TTYs.[180] Furthermore, as we noted in the *Notice*, the Commission in 1999 released a Notice of Inquiry raising specific questions regarding the application of the disability accessibility provisions found in sections 251(a)(2) and 255 of the Act in the context of "IP telephony" and "computer-based equipment that replicates telecommunications functionality."[181] That Notice sought comment on the extent to which Internet telephony was impairing access to communications services among people with disabilities, the efforts that manufacturers were taking to render new technologies accessible, and the degree to which these technologies should be subjected to the same disability access requirements as traditional telephony facilities.[182] We ask commenters to refresh the record in that proceeding in light of today's Order by filing comments in this docket. Are there any steps that the Commission needs to take to ensure that people with disabilities who desire to use interconnected VoIP service obtain access to E911 services? What is the basis of the Commission's authority to impose any obligations that commenters feel are warranted?

V. PROCEDURAL MATTERS

A. *Ex Parte* Presentations

64. This matter shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.[183] Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required.[184] Other requirements pertaining to oral and written presentations are set forth in section 1.1206(b) of the Commission's rules.

B. Comment Filing Procedures

65. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. **All filings related to this Order and the Notice of Proposed Rulemaking should refer to WC Docket No. 05-196.** We hereby incorporate the comments and *ex parte* presentations in WC Docket No. 04-36 into WC Docket No. 05-196. Commenters need not resubmit

[180] *See* 42 U.S.C. §§ 12131-12134. Pursuant to the ADA requirements, telephone emergency services, including 911 services, are required to provide direct access to individuals who use telecommunication devices for the deaf (TDDs, or as now commonly called, TTYs) and computer modems, without relying on outside relay services or third party services. *See* 28 C.F.R. § 35.162; *see also* 28 C.F.R. § 35.160(a) (providing that a public entity shall "take appropriate steps to ensure that communications with applicants, participants, and members of the public with disabilities are as effective as communications with others"); 28 C.F.R. § 35.161 (stating that "[w]here a public entity communicates by telephone with applicants and beneficiaries, TDD's or equally effective telecommunication systems shall be used to communicate with individuals with impaired hearing or speech").

[181] *Disability Access Order*, 16 FCC Rcd at 6483-84, para. 175; *see generally id.* at 6483-6486, paras. 173-85.

[182] *See id.*, 16 FCC Rcd at 6484-86, paras. 179-85.

[183] 47 C.F.R. §§ 1.200 *et seq.*

[184] *See* 47 C.F.R. § 1.1206(b)(2).

material previously filed in that proceeding. Comments may be filed using: (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies. *See* Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://www.fcc.gov/cgb/ecfs/ or the Federal eRulemaking Portal: http://www.regulations.gov. Filers should follow the instructions provided on the website for submitting comments.

    - For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.

- Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

  Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

    - The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE., Suite 110, Washington, DC 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.

    - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

    - U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street, SW, Washington DC 20554.

66. All filings must be addressed to the Commission's Secretary, Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, 445 12th Street, SW, Washington, DC 20554. Parties should also send a copy of their filings to Janice Myles, Competition Policy Division, Wireline Competition Bureau, Federal Communications Commission, Room 5-C140, 445 12th Street, SW, Washington, D.C. 20554, or by e-mail to janice.myles@fcc.gov. Parties shall also serve one copy with the Commission's copy contractor, Best Copy and Printing, Inc. (BCPI), Portals II, 445 12th Street, SW, Room CY-B402, Washington, D.C. 20554, (202) 488-5300, or via e-mail to fcc@bcpiweb.com.

67. Documents in WC Docket Nos. 04-36 and 05-196 are available for public inspection and copying during business hours at the FCC Reference Information Center, Portals II, 445 12th St. SW, Room CY-A257, Washington, DC 20554. The documents may also be purchased from BCPI, telephone (202) 488-5300, facsimile (202) 488-5563, TTY (202) 488-5562, e-mail fcc@bcpiweb.com.

C. Accessible Formats

68. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at (202) 418-0531 (voice), (202) 418-7365 (TTY).

D. Regulatory Flexibility Analyses

69. As required by the Regulatory Flexibility Act of 1980, *see* 5 U.S.C. § 604, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The FRFA is set forth in Appendix C.

70. As required by the Regulatory Flexibility Act of 1980, *see* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The IRFA is set forth in Appendix C. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments filed in response to this Notice of Proposed Rulemaking as set forth in paragraph 65, and have a separate and distinct heading designating them as responses to the IRFA.

E. Paperwork Reduction Act Analysis

71. This document contains new information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this proceeding.

F. Congressional Review Act

72. The Commission will send a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act (CRA), *see* 5 U.S.C. § 801(a)(1)(A).

VI. ORDERING CLAUSES

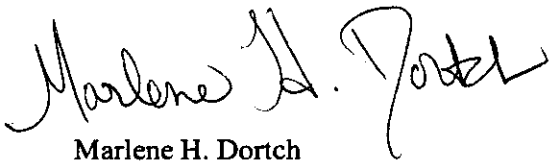
73. Accordingly, IT IS ORDERED that pursuant to sections 1, 4(i), 4(j), 251(e) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i)-(j), 251(e), 303(r), the Report and Order in WC Docket No. 04-36 IS ADOPTED, and that Part 9 of the Commission's Rules, 47 C.F.R. Part 9, is added as set forth in Appendix B. The Order shall become effective 30 days after publication in the

Federal Register subject to OMB approval for new information collection requirements.[185] Accordingly, subject to such OMB approval: (i) the customer notification requirements set forth in paragraphs 48 and 49 of the Order shall become effective upon the effective date of the Order; (ii) the compliance letter described in paragraph 50 of the Order must be submitted to the Commission no later than 120 days after the effective date of the Order; and (iii) all other requirements shall become effective 120 days after the effective date of the Order.

74. IT IS FURTHER ORDERED that pursuant to the authority contained in sections 1, 4(i), 4(j), 251(e), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i)-(j), 251(e), 303(r), the Notice of Proposed Rulemaking in WC Docket No. 05-196 IS ADOPTED.

75. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this First Report and Order and Notice of Proposed Rulemaking, including the Final Regulatory Flexibility Analysis and the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION



Marlene H. Dortch
Secretary

[185] In light of the importance of these rules, the Commission is seeking emergency approval from OMB. The Commission will issue a public notice announcing the date upon which the information collection requirements set forth in this Order shall become effective following receipt of such emergency approval.

APPENDIX A
LIST OF COMMENTERS

Comments in WC Docket No. 04-36

Comments	Abbreviation
8X8, Inc.	8X8
AARP	AARP
ACN Communications Services, Inc.	ACN
Ad Hoc Telecommunications Users Committee	Ad Hoc
Alcatel North America	Alcatel
Alliance for Public Technology	APT
America's Rural Consortium	ARC
American Foundation for the Blind	AFB
American Public Communications Council	APCC
Amherst, Massachusetts Cable Advisory Committee	Amherst CAC
Arizona Corporation Commission	Arizona Commission
Artic Slope Telephone Association Cooperative, Inc. Cellular Mobile Systems of St. Cloud, LLC d/b/a Cellular 2000 Comanche County Telephone, Inc. DeKalb Telephone Cooperative, Inc. d/b/a DTC Communications Grand River Mutual Telephone Corporation Interstate 35 Telephone Company KanOkla Telephone Association, Inc. Siskiyou Telephone Company Uintah Basin Telecommunications Association, Inc. Vermont Telephone Company, Inc. Wheat State Telephone, Inc.	Artic Slope *et al.*
Association for Communications Technology Professionals in Higher Education	ACUTA
Association for Local Telecommunications Services	ALTS
Association of Public-Safety Communications Officials-International, Inc.	APCO
AT&T Corporation	AT&T
Attorney General of the State of New York	New York Attorney General
Avaya, Inc.	Avaya
BellSouth Corporation	BellSouth
Bend Broadband Cebridge Connections, Inc. Insight Communications Company, Inc. Susquehanna Communication	Bend Broadband *et al.*
Boulder Regional Emergency Telephone Service Authority	BRETSA
BT Americas Inc.	BTA
Cablevision Systems Corp.	Cablevision
Callipso Corporation	Callipso
Cbeyond Communications, LLC GlobalCom, Inc. MPower Communications, Corp.	Cbeyond *et al.*

CenturyTel, Inc.	CenturyTel
Charter Communications	Charter
Cheyenne River Sioux Tribe Telephone Authority	Cheyenne Telephone Authority
Cisco Systems, Inc.	Cisco
Citizens Utility Board	CUB
City and County of San Francisco	San Francisco
City of New York	New York City
Comcast Corporation	Comcast
Communication Service for the Deaf, Inc.	CSD
Communications Workers of America	CWA
CompTel/ASCENT	CompTel
Computer & Communications Industry Association	CCIA
Computing Technology Industry Association	CompTIA
Consumer Electronics Association	CEA
Covad Communications	Covad
Cox Communications, Inc.	Cox
CTIA-The Wireless Association	CTIA
Department of Homeland Security	DHS
DialPad Communication, Inc. ICG Communications, Inc. Qovia, Inc. VoicePulse, Inc.	Dialpad *et al.*
DJE Teleconsulting, LLC	DJE
Donald Clark Jackson	Jackson
EarthLink, Inc.	EarthLink
EDUCAUSE	EDUCAUSE
Electronic Frontier Foundation	EFF
Enterprise Communications Association	ECA
Federation for Economically Rational Utility Policy	FERUP
Francois D. Menard	Menard
Frontier and Citizens Telephone Companies	Frontier/Citizens
General Communications, Inc.	GCI
Global Crossing North America, Inc.	Global Crossing
GVNW Consulting, Inc.	GVNW
ICORE, Inc.	ICORE
IEEE-USA	IEEE-USA
Illinois Commerce Commission	Illinois Commerce Commission
Inclusive Technologies	Inclusive Technologies
Independent Telephone & Telecommunications Alliance	ITTA
Information Technology Association of America	ITAA
Information Technology Industry Council	ITIC
Interstate Telcom Consulting, Inc.	ITCI
Jonary Consulting	Jonary
Iowa Utilities Board	Iowa Commission
King County E911 Program	King County
Level 3 Communications LLC	Level 3
Lucent Technologies Inc.	Lucent Technologies
Maine Public Utilities Commissioners	Maine Commissioners
MCI	MCI
Microsoft Corporation	Microsoft

Minnesota Public Utilities Commission	Minnesota Commission
Montana Public Service Commission	Montana Commission
Motorola, Inc.	Motorola
National Association of Regulatory Utility Commission	NARUC
National Association of State Utility Consumer Advocates	NASUCA
National Association of Telecommunications Officers and Advisors National League of Cities National Association of Counties U.S. Conference of Mayors National Association of Towns and Townships Texas Coalition of Cities for Utility Issues Washington Association of Telecommunications Officers and Advisors Greater Metro Telecommunications Consortium Mr. Hood Cable Regulatory Commission Metropolitan Washington Council of Governments Rainier Communications Commission City of Philadelphia City of Tacoma, Washington Montgomery County, Maryland	NATOA *et al.*
National Cable & Telecommunications Association	NCTA
National Consumers League	NCL
National Emergency Number Association	NENA
National Exchange Carrier Association, Inc.	NECA
National Governors Association	NGA
National Grange	National Grange
National Telecommunications Cooperative Association	NTCA
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Independent Companies
Net2Phone, Inc.	Net2Phone
New Jersey Board of Public Utilities	New Jersey Commission
New Jersey Division of the Ratepayer Advocate	New Jersey Ratepayer Advocate
New York State Department of Public Service	New York Commission
nexVortex, Inc.	nexVortex
Nortel Networks	Nortel
Nuvio Corporation	Nuvio
Office of Advocacy, U.S. Small Business Administration	SBA
Office of the Attorney General of Texas	Texas Attorney General
Office of the People's Counsel for the District of Columbia	D.C. Counsel
Ohio Public Utilities Commission	Ohio Commission
Omnitor	Omnitor
Organization for the Promotion and Advancement of Small Telecommunications Companies	OPASTCO
Pac-West Telecomm, Inc.	Pac-West
People of the State of California and the California Public Utilities Commission	California Commission
Public Service Commission of the State of Missouri	Missouri Commission
Pulver.com	pulver.com

Qwest Communications International Inc.	Qwest
Rehabilitation Engineering Research Center on Telecommunications Access	RERCTA
Rural Independent Competitive Alliance	RICA
SBC Communications, Inc.	SBC
Self Help for Hard of Hearing People	SHHHP
Skype, Inc.	Skype
Sonic.net, Inc.	Sonic.net
SPI Solutions, Inc.	SPI Solutions
Spokane County 911 Communications	Spokane County 911
Sprint Corporation	Sprint
TCA, Inc. – Telecom Consulting Associates	TCA
Telecommunications for the Deaf, Inc	TDI
Telecommunications Industry Association	TIA
Tellme Networks, Inc	Tellme Networks
Tennessee Regulatory Authority	TRA
Texas Coalition of Cities for Utility Issues	TCCFUI
Texas Commission on State Emergency Communications.	TCSEC
Texas Department of Information Resources	Texas DIR
Time Warner Inc.	Time Warner
Time Warner Telecom	TWTC
TracFone Wireless, Inc.	TracFone
UniPoint Enhanced Services Inc. d/b/a PointOne	PointOne
United States Conference of Catholic Bishops Alliance for Community Media Appalachian People's Actions Coalition Center for Digital Democracy Consumer Action Edgemont Neighborhood Coalition Migrant Legal Action Program	USCCB *et al.*
United States Department of Justice	DOJ
United States Telecom Association	USTA
United Telecom Council The United Power Line Council	UTC *et al.*
USA Datanet Corporation	USAD Datanet
Utah Division of Public Utilities	Utah Commission
Valor Telecommunications of Texas, L.P. and Iowa Telecommunications Services, Inc.	Valor *et al.*
VeriSign, Inc.	VeriSign
Verizon Telephone Company	Verizon
Vermont Public Service Board	Vermont
Virgin Mobile USA, LLC	Virgin Mobile
Virginia State Corporation Commission	Virginia Commission
Voice on the Net Coalition	VON Coalition
Vonage Holdings Corp	Vonage
Western Telecommunications Alliance	WTA
WilTel Communications, LLC	WilTel
Wisconsin Electric Power Company Wisconsin Gas	Wisconsin Electric *et al.*
Yellow Pages Integrated Media Association	YPIMA

Z-Tel Communications, Inc.	Z-Tel

Reply Comments in WC Docket No. 04-36

Reply Comments	Abbreviation
8X8, Inc.	8X8
Ad Hoc Telecom Manufacturer Coalition	Ad Hoc Telecom Manufacturers Coalition
Ad Hoc Telecommunications Users Committee	Ad Hoc
Adam D. Thierer, Director of Telecommunications Studies, Cato Institute	Thierer
Alcatel North America	Alcatel
Alliance for Public Technology et al.	APT *et al.*
American Cable Association	ACA
American Electric Power Service Corporation Duke Energy Corporation Xcel Energy Inc.	American Electric Power *et al.*
Association for Local Telecommunications Services	ALTS
AT&T Corp.	AT&T
Avaya Inc.	Avaya
BellSouth Corporation	BellSouth
Broadband Service Providers Association	BSPA
Cablevision Systems Corp.	Cablevision
Callipso Corporation	Callipso
Central Station Alarm Association	CSAA
Cingular Wireless LLC	Cingular
Cisco Systems, Inc.	Cisco
City and County of San Francisco	San Francisco
Comcast Corporation	Comcast
CompTel/Ascent	CompTel
Consumer Electronics Association	CEA
Consumer Federation of America Consumers Union	CFA *et al.*
Covad Communications	Covad
CTC Communications Corp.	CTS
CTIA-The Wireless Association	CTIA
Donald Clark Jackson	Jackson
EarthLink, Inc.	EarthLink
Educause	Educause
Enterprise Communications Association	ECA
Ericsson Inc.	Ericsson
Florida Public Service Commission	Florida Commission
Francois D. Menard	Menard
General Communication (GCI)	GCI
Global Crossing North America, Inc.	Global Crossing
Independent Telephone & Telecommunications Alliance	ITTA
Information Technology Association of America	Information Technology Association of America
Intergovernmental Advisory Committee	IAC
Intrado Inc.	Intrado

Knology, Inc.	Knology
Level 3 Communications LLC	Level 3
Massachusetts Office of the Attorney General	Massachusetts Attorney General
MCI	MCI
Montana Public Service Commission	Montana Commission
Motorola, Inc.	Motorola
National Association of State Utility Consumer Advocates	NASUCA
National Association of Telecommunications Officers and Advisors National League of Cities National Association of Counties U.S. Conference of Mayors National Association of Towns and Townships Texas Coalition of Cities for Utility Issues Washington Association of Telecommunications Officers and Advisors Greater Metro Telecommunications Consortium Mr. Hood Cable Regulatory Commission Metropolitan Washington Council of Governments Rainier Communications Commission City of Philadelphia City of Tacoma, Washington Montgomery County, Maryland	NATOA *et al.*
National Cable & Telecommunications Association	NCTA
National Emergency Number Association	NENA
National Exchange Carrier Association, Inc.	NECA
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Independent Companies
Net2Phone, Inc.	Net2Phone
New Jersey Division of the Ratepayer Advocate	New Jersey Ratepayer Advocate
New York State Department of Public Service	New York Commission
Nextel Communications, Inc.	Nextel
Nuvio Corporation	Nuvio
Office of the People's Counsel for the District of Columbia	D.C. Counsel
Organization for the Promotion and Advancement of Small Telecommunications Companies	OPASTCO
Pac-West Telecomm, Inc.	Pac-West
Pennsylvania Public Utility Commission	Pennsylvania Commission
Public Service Commission of Wisconsin	Wisconsin Commission
Qwest Communications International Inc.	Qwest
Regulatory Studies Program (RSP) of the Mercatus Center at George Mason University	Mercatus Center
Rehabilitation Engineering Research Center on Telecommunications Access	RERCTA
RNKL, Inc. d/b/a RNK Telecom	RNK
Rural Independent Competitive Alliance	RICA
SBC Communications Inc.	SBC
Skype, Inc.	Skype

Southern Communications Services, Inc. d/b/a Southern LINC	Southern LINC
Sprint Corporation	Sprint
Telecommunications Industry Association	TIA
Tellme Networks, Inc	Tellme Networks
Texas Statewide Telephone Cooperative, Inc.	Texas Statewide Telephone Cooperative
Time Warner Telecom, Inc.	Time Warner Telecom
T-Mobile USA, Inc.	T-Mobile
TracFone Wireless, Inc.	TracFone
United States Conference of Catholic Bishops Alliance for Community Media Appalachian Peoples' Action Coalition Center for Digital Democracy Consumer Action Edgemont Neighborhood Coalition Migrant Legal Action Program	USCCB *et al.*
United States Department of Justice	DOJ
United States Telecom Association	USTA
USA Datanet Corporation	USA Datanet
Utah Division of Public Utilities	Utah Commission
VeriSign, Inc.	VeriSign
Verizon Telephone Companies	Verizon
Voice on the Net Coalition	VON Coalition
Wisconsin Department of Public Instruction	Wisconsin Department of Public Instruction

APPENDIX B
FINAL RULES

Part 9 of Title 47 of the Code of Federal Regulations is added to read as follows:

PART 9 —INTERCONNECTED VOICE OVER INTERNET PROTOCOL SERVICES

Sec.
9.1 Purpose.
9.3 Definitions.
9.5 E911 Service

AUTHORITY: 47 U.S.C. 151, 154(i)-(j), 251(e), and 303(r) unless otherwise noted.

§ 9.1 Purpose

The purpose of these rules is to set forth the E911 service requirements and conditions applicable to interconnected Voice over Internet Protocol service providers.

§ 9.3 Definitions.

Appropriate local emergency authority. An emergency answering point that has not been officially designated as a Public Safety Answering Point (PSAP), but has the capability of receiving 911 calls and either dispatching emergency services personnel or, if necessary, relaying the call to another emergency service provider. An appropriate local emergency authority may include, but is not limited to, an existing local law enforcement authority, such as the police, county sheriff, local emergency medical services provider, or fire department.

ANI. Automatic Number Identification, as such term is defined in Section 20.3 of these rules.

Interconnected VoIP service. An interconnected Voice over Internet protocol (VoIP) service is a service that: (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user's location; (3) requires Internet protocol-compatible customer premises equipment (CPE); and (4) permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.

Pseudo Automatic Number Identification (Pseudo-ANI). A number, consisting of the same number of digits as ANI, that is not a North American Numbering Plan telephone directory number and may be used in place of an ANI to convey special meaning. The special meaning assigned to the pseudo-ANI is determined by agreements, as necessary, between the system originating the call, intermediate systems handling and routing the call, and the destination system.

PSAP. Public Safety Answering Point, as such term is defined in Section 20.3 of these rules.

Registered Location. The most recent information obtained by an interconnected VoIP service provider that identifies the physical location of an end user.

Statewide default answering point. An emergency answering point designated by the State to receive 911 calls for either the entire State or those portions of the State not otherwise served by a local PSAP.

Wireline E911 Network. A dedicated wireline network that (1) is interconnected with but largely separate from the public switched telephone network, (2) includes a selective router, and (3) is utilized to route emergency calls and related information to PSAPs, designated statewide default answering points, appropriate local emergency authorities or other emergency answering points.

§ 9.5 E911 Service.

(a) Scope of Section. The following requirements are only applicable to providers of interconnected VoIP services. Further, the following requirements apply only to 911 calls placed by users whose Registered Location is in a geographic area served by a Wireline E911 Network (which, as defined in Section 9.3, includes a selective router).

(b) E911 Service. As of [120 days after the effective date of the Order]:

(1) Interconnected VoIP service providers must, as a condition of providing service to a consumer, provide that consumer with E911 service as described in this section;

(2) Interconnected VoIP service providers must transmit all 911 calls, as well as ANI and the caller's Registered Location for each call, to the PSAP, designated statewide default answering point, or appropriate local emergency authority that serves the caller's Registered Location and that has been designated for telecommunications carriers pursuant to section 64.3001 of this chapter, provided that "all 911 calls" is defined as "any voice communication initiated by an interconnected VoIP user dialing 911;"

(3) All 911 calls must be routed through the use of ANI and, if necessary, pseudo-ANI, via the dedicated Wireline E911 Network; and

(4) The Registered Location must be available to the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority from or through the appropriate automatic location information (ALI) database.

(c) Service Level Obligation. Notwithstanding the provisions in paragraph (b) of this section, if a PSAP, designated statewide default answering point, or appropriate local emergency authority is not capable of receiving and processing either ANI or location information, an interconnected VoIP service provider need not provide such ANI or location information; however, nothing in this paragraph affects the obligation under paragraph (b) of an interconnected VoIP service provider to transmit via the Wireline E911 Network all 911 calls to the PSAP, designated statewide default answering point, or appropriate local emergency authority that serves the caller's Registered Location and that has been designated for telecommunications carriers pursuant to section 64.3001 of this chapter.

(d) Registered Location Requirement. As of [120 days after the effective date of the Order], interconnected VoIP service providers must:

(1) Obtain from each customer, prior to the initiation of service, the physical location at which the service will first be utilized; and

(2) Provide their end users one or more methods of updating their Registered Location, including at least one option that requires use only of the CPE necessary to access the interconnected VoIP service. Any method utilized must allow an end user to update the Registered Location at will and in a timely manner.

(e) Customer Notification. Each interconnected VoIP service provider shall:

(1) Specifically advise every subscriber, both new and existing, prominently and in plain language, of the circumstances under which E911 service may not be available through the interconnected VoIP service or may be in some way limited by comparison to traditional E911 service. Such circumstances include, but are not limited to, relocation of the end user's IP-compatible CPE, use by the end user of a non-native telephone number, broadband connection failure, loss of electrical power, and delays that may occur in making a Registered Location available in or through the ALI database;

(2) Obtain and keep a record of affirmative acknowledgement by every subscriber, both new and existing, of having received and understood the advisory described in subparagraph (1); and

(3) Distribute to its existing subscribers warning stickers or other appropriate labels warning subscribers if E911 service may be limited or not available and instructing the subscriber to place them on or near the equipment used in conjunction with the interconnected VoIP service. Each interconnected VoIP provider shall distribute such warning stickers or other appropriate labels to each new subscriber prior to the initiation of that subscriber's service.

(f) Compliance Letter. All interconnected VoIP providers must submit a letter to the Commission detailing their compliance with this section no later than [120 days after the effective date of this Order].

APPENDIX C
REGULATORY FLEXIBILITY ANALYSES

I. FINAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice* in WC Docket 04-36.[2] The Commission sought written public comment on the proposals in the *Notice*, including comment on the IRFA.[3] We received comments specifically directed toward the IRFA from three commenters. These comments are discussed below. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[4]

A. Need for, and Objectives of, the Rules

2. Today's Order establishes rules requiring providers of interconnected VoIP – meaning VoIP service that allows a user generally to receive calls originating from and to terminate calls to the public switched telephone network (PSTN) – to provide enhanced 911 (E911) capabilities to their customers as a standard feature of service. The Order requires providers of interconnected VoIP service to provide E911 service no matter where the customer is using the service, whether at home or away.

3. The Order is in many ways a necessary and logical follow-up to the *Vonage Order* issued late last year. In that order, the Commission determined that Vonage's DigitalVoice service – an interconnected VoIP service – cannot be separated into interstate and intrastate communications and that this Commission has the responsibility and obligation to decide whether certain regulations apply to DigitalVoice and other IP-enabled services having similar capabilities. The *Vonage Order* also made clear that questions regarding what regulatory obligations apply to providers of such services would be addressed in the pending *IP-Enabled Services* proceeding. In accord with that statement, today's Order takes critical steps to advance the goal of public safety by imposing E911 obligations on certain VoIP providers.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

4. In this section, we respond to comments filed in response to the IRFA.[5] To the extent we received comments raising general small business concerns during this proceeding, those comments are discussed throughout the Order.

5. We disagree with SBA and Menard that the Commission should postpone acting in this proceeding – thereby postponing imposing E911 obligations on interconnected VoIP service providers – and instead should reevaluate the economic impact and the compliance burdens on small entities and issue a further notice of proposed rulemaking in conjunction with a supplemental IRFA identifying and

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[1] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-12, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[2] *See Notice*, 19 FCC Rcd at 4917, 4919-50, para. 91 & Appendix A.

[3] *Id.*

[4] *See* 5 U.S.C. § 604.

[5] *See* SBA Comments; Menard Comments; Menard Reply Comments; Letter from Glenn S. Richards, Counsel for VON Coalition, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-36, Attach. at 7 (filed May 12, 2005) (VON Coalition May 12, 2005 *Ex Parte* Letter).

analyzing the economic impacts on small entities and less burdensome alternatives.[6] We believe the additional steps suggested by SBA and Menard are unnecessary because, as described below, small entities already have received sufficient notice of the issues addressed in today's Order and because the Commission, as requested by the VON Coalition, has considered the economic impact on small entities and what ways are feasible to minimize the burdens imposed on those entities, and, to the extent feasible, has implemented those less burdensome alternatives.[7]

6. The *Notice* specifically sought comment on what 911/E911 obligations should apply in the context of IP-enabled services, and discussed the criteria the Commission previously has used to determine the scope of its existing 911/E911 rules.[8] The *Notice* asked whether it would be appropriate for the Commission to "impose a requirement that some or all IP-enabled voice services provide 911 functionality to consumers and [sought] comment on this proposal," and also sought comment on whether the Commission should impose E911 obligations on IP-enabled services which would involve immediate costs versus imposing E911 obligations at a later time which would involve "costly and inefficient 'retrofitting' of embedded IP infrastructure."[9] The *Notice* also asked whether less burdensome alternatives would be preferable to imposing E911 obligations as direct regulation, including whether the promulgation of best practices or technical guidelines would adequately promote the provision of effective IP-based E911 services, and whether voluntary agreements among public safety trade associations, commercial IP-stakeholders, consumers, and state and local E911 coordinators and administrators would be preferable to direct regulation.[10] The Commission also sought comment on ways it could provide for technological flexibility so that our rules allow for the development of new and innovative technologies.[11] While the *Notice* did not specify particular rules the Commission might adopt – and the IRFA therefore did not catalogue the effects that such particular rules might have on small businesses – the Commission provided notice to parties regarding the range of policy outcomes that might result from today's Order. A summary of the *Notice* was published in the Federal Register, and we believe that such publication constitutes appropriate notice to small businesses subject to this Commission's regulation.[12] We note that a number of small entities submitted comments in this proceeding.[13] The comments of all entities that specifically addressed issues affecting small businesses, including different types of VoIP service providers, enabled the Commission to consider the concerns of small businesses throughout this Order. Moreover, in Part C, below, we attempt to estimate the number of small businesses that will be affected by the rules we adopt herein.[14] Therefore, we believe that small

[6] *See* SBA Comments at 2, 4, 6; Menard Comments; Menard Reply Comments at 4.

[7] *See* VON Coalition May 12, 2005 *Ex Parte* Letter at 7.

[8] *See Notice*, 19 FCC Rcd at 4898-01, paras. 53-57. We reject as inaccurate Menard's contention that nowhere in the *Notice* does the Commission seek comment on the appropriate grounds on which to differentiate among providers of IP-enabled services. Menard Comments at 4 (claiming that the Commission only seeks comment on how to distinguish IP-enabled services). The *Notice* specifically asks whether the Commission should "distinguish between classes of IP-enabled service providers based on the method by which they provide [911/E911] capabilities." *See Notice*, 19 FCC Rcd at 4900, para. 54.

[9] *See Notice*, 19 FCC Rcd at 4901, para. 57.

[10] *See id.* at 4900-01, para. 56.

[11] *See id.* at 4901, para. 56.

[12] *See* 5 U.S.C. § 603(a); *see also Regulatory Requirements for IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 69 Fed. Reg. 16193-01 (Mar. 29, 2004).

[13] *See supra* Appendix A.

[14] The VON Coalition's May 12, 2005 *ex parte* filing contends that, before the Commission may adopt rules in the *IP-Enabled Services* proceeding, it "is obligated to contact SBA's Office of Size Standards to determine the appropriate size standard for VoIP providers." VON Coalition May 12, 2005 *Ex Parte* Letter, Attach. at 7. This